

List of Material and Equipment

Name	Example Brand and Model	Possible Vendor	Link	Number	Sample Cost (1/3/20)	Total for item
12 volt, 8 amp-hour, deep cycle battery	UB 1280	Altestore	https://www.altestore.com/store/deep-cycle-batteries/sealed-agm-batteries/universal-ub1280-12v-8ah20hr-sealed-agm-battery-p2003/	1	17.5	17.5
12 volt, 10 amp charge controller	Morningstar SunLight 10	Altestore	https://www.altestore.com/store/charge-controllers/solar-lighting-controllers/morningstar-sunlight-sl-10l-12v-10a-lighting-controller-with-lvd-p795/	1	90	90
12 volt, 30 watt photovoltaic module	Peimar OS30P	Altestore	https://www.altestore.com/store/solar-panels/peimar-off-grid-solar-panels-p41254/#PEI-30W-12P	1	69	69
four opening Load center *	Midnite Solar Big Baby Box	Altestore	https://www.altestore.com/store/enclosures-electrical-safety/electrical-enclosures/disconnectload-enclosures/ac-andor-dc/midnite-solar-big-baby-box-for-ac-or-dc-breakers-p7475/	1	39.5	39.5
10 amp DC rated circuit breakers **	Midnite Solar 10 Amp, 150 Volt DC Din Rail Breaker	Altestore	https://www.altestore.com/store/enclosures-electrical-safety/overcurrent-devices-fuses-breakers/din-rail-circuit-breakers/din-rail-mount-circuit-breakers-p40906/#GENBRKDIN-10	3	12.25	36.75
metal octagon electrical box	RACO 4 inch drawn electrical box	Home Depot	https://www.homedepot.com/p/RACO-4-in-Drawn-Octagon-Electrical-Box-with-Raised-Ground-8125/202056160	1	1.23	1.23
keyless lamp holder	Leviton Plastic Keyless Lamp Holder	Home Depot	https://www.homedepot.com/p/Leviton-Plastic-Keyless-Lamp-Holder-R50-08829-CW4/100356849	1	1.58	1.58
25 watt, 12 volt incandescent lamp	Philips 25 watt A19 Incadescent light bulb (2-pack)	Home Depot	https://www.homedepot.com/p/Philips-25-Watt-A19-Dimmable-DuraMax-Long-Life-Incandescent-Light-Bulb-Soft-White-2450K-2-Pack-168682/303543749	1	3.98	3.98
8-10 feet, stranded copper electrical wire, 14 AWG, black and red	Southwire 14 AWG copper THHN wire	Lowe's	https://www.lowes.com/pd/Southwire-14-AWG-Solid-Blue-Copper-THHN-Wire-By-the-Foot/4294355	20	0.27	5.4
3/8 inch plywood board, roughly 18 inches by 24 inches	4' x 8' sheet of pine plywood	Home Depot	https://www.homedepot.com/p/11-32-in-or-3-8-in-x-4-ft-x-8-ft-BC-Sanded-Pine-Plywood-721715/100094072	1	18.73	<u>18.73</u>
Total	N/A	N/A	N/A	N/A	N/A	283.67
* could use three gang switch box	Carlton 3-gang PVC electrical outlet box	Home Depot	https://www.homedepot.com/p/Carlton-3-Gang-44-cu-in-New-Work-PVC-Electrical-Outlet-Box-B344AB/100404028	1	2.37	2.37
** could use single pole switches	Leviton 15 Amp single pole toggle switch	Home Depot	https://www.homedepot.com/p/Leviton-15-Amp-Single-Pole-Toggle-Light-Switch-White-R52-01451-02W/100026991	3	0.54	<u>1.62</u>
Total with substitutes	N/A	N/A	N/A	N/A	N/A	211.41
clamp-on multimeter to measure DC current ***	Klein Tools 400 Amp Auto-Ranging AC/DC Digital Clamp Meter	Home Depot	https://www.homedepot.com/p/Klein-Tools-400-Amp-Auto-Ranging-AC-DC-Digital-Clamp-Meter-CL380/308554222	1	89.97	89.97
digital multimeter to measure DC electrical potential ***	Klein Tools 600 volt Auto-Ranging Digital Multimeter	Home Depot	https://www.homedepot.com/p/Klein-Tools-600V-Auto-Ranging-Digital-Multimeter-MM400/206517333	1	49.95	49.95
pyranometer	Daystar DS-05A Digital Solar Meter	Altestore	https://www.altestore.com/store/meters-communications-site-analysis/solar-site-analysis-tools/daystar-inc-ds-05a-digital-solar-meter-p7949/	1	167.66	<u>167.66</u>
*** Fluke, Milwaukee and Southwire are also reliable brands	N/A	N/A	N/A	N/A	N/A	N/A
Total for Meters	N/A	N/A	N/A	N/A	N/A	307.58